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AEROSPACE STANDARD

AS6480

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Submitted for recognition as an American National Standard

Tie Down, Cargo, Aircraft, Type C-2

NOTICE

This document has been taken directly from U.S. Military Specification MIL-T-6480A and contains only minor editorial and format changes required to bring it into conformance with the publishing requirements of SAE technical standards.

The original Military Specification was adopted as an SAE standard under the provisions of the SAE Technical Standards Board (TSB) Rules and Regulations (TSB 001) pertaining to accelerated adoption of government specifications and standards. TSB rules provide for (a) the publication of portions of unrevised government specifications and standards without consensus voting at the SAE Committee level, (b) the use of the existing government specification or standard format, and (c) the exclusion of any qualified product list (QPL) sections.

1. SCOPE:

1.1 This specification covers one type of aircraft cargo tie down, designated Type C-2.

2. APPLICABLE SPECIFICATIONS, STANDARDS, DRAWINGS, AND PUBLICATIONS:

2.1 The following specifications, standard, and drawing, of the issue in effect on date of invitation for bids, form a part of this specification to the extent specified herein:

SPECIFICATIONS

Federal

QQ-P-416	Plating, Cadmium (Electrodeposited)
QQ-Z-325	Zinc Plating (Electrodeposited)

QUESTIONS REGARDING THIS DOCUMENT: (412) 772-8510 FAX: (412) 776-0243
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2.1 (Continued):

Military

MIL-A-140	Adhesive, Water-Resistant, Waterproof Barrier-Material
MIL-C-6458	Chain Assembly, 10,000 Lb Capacity, Type C-2 Cargo Tiedown
MIL-G-3278	Grease; Aircraft and Instruments (For Low and High Temperatures)
MIL-M-7911	Marking, Identification of Aeronautical Equipment, Assemblies, and Parts
JAN-P-105	Packaging and Packing for Overseas Shipment - Boxes, Wood, Cleated, Plywood
JAN-P-106	Packaging and Packing for Overseas Shipment - Boxes; Wood, Nailed
JAN-P-108	Packaging and Packing for Overseas Shipment - Boxes, Fiberboard, (V-Board and W-Board), Exterior and Interior
JAN-P-125	Packaging and Packing for Overseas Shipment - Barrier-Materials, Waterproof, Flexible

STANDARDS

MIL-STD-129	Marking of Shipments

DRAWINGS

U.S. Air Force Drawing

50D7571	Tie down Assembly - Cargo, Aircraft, 10,000 Lb Capacity, Type C-2

(Copies of specifications, standards, and drawings required by contractors in connection with specific procurement functions should be obtained from the procuring activity or as directed by the contracting officer.)

3. REQUIREMENTS:

3.1 General:

The requirements specified on Drawing 50D7571 and the details thereof are applicable as requirements of this specification. Additional requirements shall be as specified herein.

3.1.1 In the event the requirements of Drawing 50D7571, the details thereof, and this specification conflict, the requirements of this specification shall govern.

3.1.2 The tie-down chain assembly, in accordance with Specification MIL-C-6458, shall not be tested to a tensile load in excess of 12,000 pounds.

3.2 Finish:

The tie down shall be cadmium plated in accordance with Specification QQ-P-416, type I, class C or zinc plated in accordance with Specification QQ-Z-325.

3.3 Lubrication:

Grease required for any moving parts shall be in accordance with Specification MIL-G-3278.

3.4 Identification of product:

The tie down shall be durably and legibly marked with the information listed below. The information marked in the spaces provided on the nameplate shall be in accordance with Specification MIL-M-7911.

TIE DOWN, CARGO, AIRCRAFT
TYPE C-2
Specification MIL-T-6480A
Stock No. (USAF or Navy, as applicable)
Part No. 50D7571
Manufacturer's Part No.
Manufacturer's Serial No.
Contract or Order No.
Manufacturer's name or trade-mark
US Property

For Navy contracts, the marking shall include the full contract number, for example, MQa(S)12345.

3.5 Workmanship:

Workmanship shall be of high quality consistent with construction of this type. All metal parts shall be clean and free from burrs and sharp edges.

4. SAMPLING, INSPECTION, AND TEST PROCEDURES:

4.1 General:

All the tests required for the testing of tie downs are classified as Inspection tests, for which necessary sampling techniques and methods of testing are specified in this section.

4.2 Test conditions:

To conduct the tensile testing of the tie down device as required by paragraph 4.3.2.3, a test fixture shall be fabricated to replace the chain assembly. This fixture shall have one end which will have the outside dimensions of the chain link and fit the pocket of the tie-down device.

4.3 Individual tests:

Each tie down shall be subjected to the following test. In addition, each tie down shall be subjected to any other test specified herein which the Inspector considers necessary to determine compliance with the requirements of this specification.

4.3.1 Examination of product: Each tie down shall be inspected to determine compliance with the requirements specified herein with respect to materials, workmanship, and marking.

4.3.2 Sampling tests: Not less than two tie downs shall be selected at random from each lot of 500 tie downs, or less, manufactured under essentially the same conditions and submitted for inspection at substantially the same time and subjected to the Sampling tests. These tests shall be in addition to the Individual tests specified herein.

4.3.2.1 Tests shall be conducted to demonstrate that a 3,000-pound tensile load may be released by application of a maximum torque of 80 inch-pounds to the release mechanism for 25 cycles without perceivable wear of working parts.

4.3.2.2 The tightening mechanism shall be tested for 25 cycles to demonstrate that a pretension of 400 pounds can be obtained manually without causing visual wear of parts.

4.3.2.3 Twenty-five cycles of tensile loading from zero to 8,460 pounds shall be applied to the tie down to test the gripping mechanism. At the completion of the above number of cycles, each inspection sample shall be subjected to a load of 14,100 pounds for 30 seconds. Upon removal of the load, the release and tensioning mechanisms shall operate freely.

4.3.2.4 Rejection and retest: When tests are specified on a quantity of tie downs that are selected as representative of a certain lot, and one or more of this number fails to meet the specified tests, additional tie downs of the lot represented shall be tested immediately to determine the extent of failure. Individual performance tests shall not be interrupted, unless the defect is of such a nature that it will seriously affect the performance or safe use of the tie down.

4.4 All parts, specimens, or assemblies destroyed in making tests required by this specification or drawings, to determine compliance with the specification or drawings, shall be in addition to the quantity specified in the contract or purchase order and shall be furnished without increasing the cost of the contract or order.

5. PREPARATION FOR DELIVERY:

5.1 Application:

The requirements specified herein apply only to direct purchases by or direct shipments to the Government.

5.2 Packaging:

Unless otherwise specified, interior packaging shall consist of one tie-down device sealed within a corrugated or solid fiberboard box conforming to Specification JAN-P-108. As an alternative to Specification JAN-P-108, commercial fiberboard boxes of comparable dry strength may be used, provided the boxes are wrapped with waterproof barrier-material conforming to Specification JAN-P-125, and sealed with adhesive conforming to Specification MIL-A-140.